

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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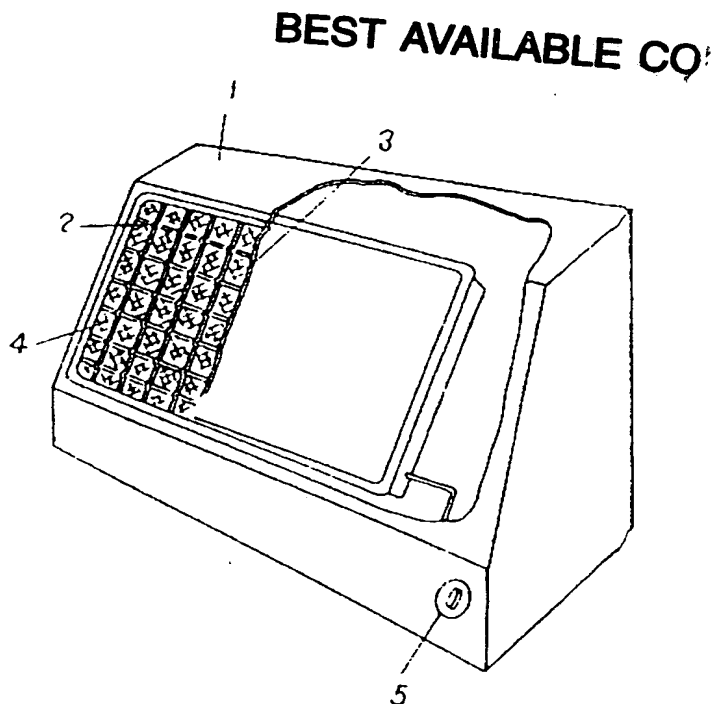
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APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : MATSUMOTO IKUO;

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TITLE : OXIDIZING CATALYST



ABSTRACT : PURPOSE: To obtain the oxidizing catalyst having a large surface area and superior activity for burning hydrocarbon, etc. by producing fine powder of composite oxide  $\text{CuCo}_2\text{O}_4$  by the evaporation gas method by which plasma, arc, etc., are irradiated to the oxide mixed stoichiometrically.

CONSTITUTION: Copper oxide and cobalt oxide are stoichiometrically mixed and introduced put into a container, after reducing the pressure some of inert gas is introduced into it to carry out arc thermal spraying, and  $\text{CuCo}_2\text{O}_4$  fine powder having a very large surface area of about  $40\text{--}60\text{m}^2/\text{g}$  is obtained by the vapor phase method. In the utility example of natural gas to a catalyst burner, the gas is burned catalytically on the oxidizing catalyst where the above- mentioned catalyst powder is supported together with alumina nitrate on the sheet-like alumina fiber and the gas is completely decomposed into steam and carbonic acid gas and the heat generated at this time is utilized for a heating system.

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